

**REMARKS**

Claims 4-14 are pending in the present application. Claims 1-3 have been canceled. Claims 4-14 have been presented herewith.

**Priority Under 35 U.S.C. 119**

Applicants note the Examiner's acknowledgment of the Claim for Priority Under 35 U.S.C. 119 and receipt of the certified copy of the Priority document.

**Drawings**

Applicants note receipt of the Notice of Draftsperson's Patent Drawing Review Form PTO-948, and that the drawings as filed along with the present application are acceptable.

**Claim Rejections-35 U.S.C. 103**

Claim 1 has been rejected under 35 U.S.C. 103(a) as being unpatentable over the Yoshida et al. reference (JP 7-264279). Also, claim 2 has been rejected under 35 U.S.C. 103(a) as being unpatentable over the Yoshihama et al. reference (JP 8-279777). Claim 3 has been rejected under 35 U.S.C. 103(a) as being unpatentable over the Fujisaki et al. reference (JP 62-269451). These rejections, insofar as they may pertain to the presently pending claims, are traversed for the following reasons.

The echo canceller of claim 4 includes in combination an adaptive digital filter

and a subtracter, wherein "tap coefficients of said adaptive digital filter are modified responsive to the part of the receiving signals and a part of the echo canceled sending signal".

Applicants respectively submit that the prior art as variously relied upon by the Examiner does not disclose or make obvious the above-noted features of claim 4. Particularly, the adaptive digital filters of the above-noted prior art references as relied upon by the Examiner are not disclosed or suggested as having tap coefficients that are modified responsive to a part of a receiving signal and a part of an echo canceled sending signal. That is, the adaptive digital filters of the above-noted references as relied upon by the Examiner do not include as inputs thereto echo canceled sending signals. Accordingly, Applicants respectively submit that the echo canceller of claim 4 would not have been obvious in view of the prior art as variously relied upon by the Examiner taken singularly or together, and that the above-noted rejections, insofar as they may pertain to claims 4-14, are improper for at least the reasons.

With further regard to the above-noted respective rejections, the Examiner has specifically asserted with respect to the Yoshida et al. reference that " There is a great possibility and inherent that the controller (113) controls the amplitude of the signal produced by the ATT (115) to substantially match with the pseudo echo signal provided by ADF (112a), so that echo signal can be canceled completely". The Examiner has made similar assertions with respect to the Yoshihama et al. and Fujisaki et al. references and the amplifiers.

Regarding the Yoshida et al. reference, element 115 in Fig. 1 is not an

attenuator as suggested by the Examiner, but is a microphone amplifier as described in the abstract of the reference. The Yoshida et al. reference therefore does not attenuate sending signals, as featured in claims 5-7.

Additionally, Applicants respectfully emphasize that the prior art as relied upon by the Examiner does not appear to specifically recognize that echo noise mixed with sending signals may have comparatively very high amplitude, due to microphone or loudspeaker volume, and that the amplitude of the echo noise may greatly exceed the amplitude of the pseudo echo noise. In such a case, the echo noise mixed within the sending signals cannot be eliminated using the pseudo echo noise, because the amplitude of the echo noise is too great. Applicants respectfully note that the Examiner has not specifically established that the prior art references recognize this problem, and that the prior art particularly controls attenuation of sending signals or controls amplification of pseudo echo signals responsive to this problem. There is no specific established teaching that the systems of the prior art references are designed or capable of canceling echo noise of high amplitude. In absence of such a specific teaching, it would appear that the Examiner's above-noted assertions regarding the attenuator and amplifiers is based on hindsight.

**Conclusion**

The Examiner is respectfully requested to reconsider and withdraw the corresponding rejections, and to pass the claims of the present application to issue, for at least the above reasons.

In the event that there are any outstanding matters remaining in the present application, the Examiner is invited to contact Andrew J. Telesz, Jr. (Reg. No. 33,581) at (703) 715-0870 in the Washington, D.C. area, to discuss these matters.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 50-0238 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

VOLENTINE FRANCOS, P.L.L.C.



Andrew J. Telesz, Jr.  
Registration No. 33,581

AJT:vlw

VOLENTINE FRANCOS, P.L.L.C.  
12200 Sunrise Valley Drive, Suite 150  
Reston, Virginia 20191  
Telephone No.: (703) 715-0870  
Facsimile No.: (703) 715-0877